

Notice of Allowability

Application No.

09/973,398

Examiner

John J. Tabone, Jr.

Applicant(s)

KUSKO ET AL.

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on 08/18/2004.
2. ☒ The allowed claim(s) is/are 1-7 and 9-20.
3. ☒ The drawings filed on 04/12/2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

- 1: Claims 1-7 and 9-20 are pending in this application and have been examined.

Response to Arguments

2. Applicant's arguments, see Applicant's Remarks, filed August 8, 2004, with respect to pending claims 1-7 and 9-20 have been fully considered and are persuasive. The Examiner has withdrawn the rejection of claims 1-7 and 9-20.

Allowable Subject Matter

3. Claims 1-7 and 9-20 are allowed.

The following is an Examiner's Statement of Reasons for Allowance:

The present invention pertains generally to integrated circuit testing and, more particularly, to a method and apparatus for facilitating the random pattern testing of logic structures. The claimed invention (claim 1 as representative, claim 1 is the broadest of the independent claims) recites features such as: "...configuring a select mechanism; routing a parallel data path with respect to a first scan chain, said parallel data path beginning from an input side of a first register included in said first scan chain, said parallel data path running through said select mechanism, and ending at an input side of a second register included in a second scan chain; said select mechanism being capable of switching a source path of input data to said second register between a normal data path comprising said second scan chain and said parallel data path;

wherein, when said parallel data path is selected as said source path of input data to said second register, data loaded from said parallel data path into said second register is selectively identical to data loaded into first register from said input side of said first register.”

The prior arts of record teach a single scan chain as a “normal” source of data to the “second” register 2b, which is serially connected to the output of the “first” register 2a. ; Hashizume et al. (US- 5,260,949) is one example of such prior arts. The prior arts of record, however, fail to teach, singly or in combination, a separate (second) scan chain in conjunction with a select mechanism that comprises a normal data path for the second (or subsequent) register. In other words, the presently claimed invention recites that the first and second registers are a part of a separate scan chain, as illustrated in Figure 5 (e.g. the data passed through master register 12 comes from a first scan chain 10, while the normal data path through shadow register 14a is through a second scan chain 10a, which is a separate from first scan chain 10). The Examiner agrees with the Applicants arguments with regard to this feature in view of the arts of record; therefore, the Examiner favors the allowance of claims 1-7 and 9-20.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Art Unit: 2133

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Tabone, Jr. whose telephone number is (703) 305-8915. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John J. Tabone, Jr.
Examiner
Art Unit 2133



ALBERT DECADY
PATENT EXAMINER
EBC CENTER 2100